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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,616	02/27/2004	Donald B. Farr	7784-000973/US	6936

65961 7590 01/04/2011

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2466	

MAIL DATE	DELIVERY MODE
01/04/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/788,616	FARR ET AL.	
	Examiner	Art Unit	
	JAE Y. LEE	2466	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-12,14-29 and 31-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-12,14-29 and 31-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 November 2010 has been entered.

Response to Amendments

2. Claims 1, 12, and 24 have been amended.

3. Claims 5, 13, and 30 have been canceled.

Response to Arguments

4. Applicant's arguments filed 30 November 2010 have been fully considered but they are not persuasive.

5. On page 14 of the applicant's arguments, the applicant argues that Schwesig and Giroti do not teach "protocol translator translates information published by the user devices."

6. The examiner respectfully disagrees with the applicant arguments because Schwesig teaches "transcoding manager providing a published media file in a requested format (paragraph 0054), server connecting to the publishing clients by wired

or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042)." In particular, each client is publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses "converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029)." In addition, HTML and RTP are used when the device has the appropriate capability in a network including Internet according to Fig. 2, 5, paragraph 0023, 0029. Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP

network while WML is used for wireless network and VxML is used in PSTN network. For instance, the evidential reference, Wang et al. (US 2002/0160745), describes protocol conversion between wireless network, e.g, WML and IP network, e.g., XML, in Fig. 13, Fig. 14, paragraph 0125-0129. Thus, Schwesig in combination with Giroti teach the protocol translator translates information published by the user devices in heterogeneous environment.

Claim Objections

7. Claims 6, 7, 9, 14, 21, 27-29, 31, 34 are objected to under 37 CFR 1.75 because of the following informalities:

Claims 6, 7 are dependent upon canceled claim 5.

Claims 6, 21, 27 recite “TDM”. It is suggested that applicant changes “TDM” to – Time Division Multiplexing (TDM) –.

Claims 7, 14, 31 recite “XML”. It is suggested that applicant changes “XML” to – Extensible Markup Language (XML) –.

Claims 9, 20, 34 recite “XSD”. It is suggested that applicant changes “XSD” to – XML Schema Definition (XSD) –.

Claim 28 recites “TADIL-J”. It is suggested that applicant changes “TADIL-J” to – Tactical Digital Information Link (TADIL)-J –.

Claim 29 recites “VMF”. It is suggested that applicant changes “VMF” to – Variable Frequency Format (VMF) –.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. **Claims 1, 2, 6, 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwesig (US 2005/0010635) in view of Evans et al. (US 2003/0033283) and Giroti et al. (US 2003/0018700).

For claim 1, Schwesig discloses a method comprising:

- providing a publisher/subscriber architecture (Fig. 1, Fig. 2, paragraph 0025: publishing clients, subscribing clients) interposed between a first network (Fig.2, paragraph 0024, 0026, 0041: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets) and a second network (Fig. 2: paragraph 0041, 0042: subscribing client

having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets) having a subscription manager for acting as a proxy subscriber on the first network to receive first information over the first network relating to the subscription, for use by a specific entity communicating with the publisher/subscriber architecture over the second network (Fig. 2, Fig. 5, paragraph 0041, 0042, 0052, 0077, 0078, 0080-0082: server having subscription manager and publish manager adds the subscribing client to a list of subscribers after verifying the authority so that the server sends published media file to the subscribing client via wired or wireless connection after receiving media file from the publishing client via wired or wireless connection);

- using a subscription router to receive the first information (Fig. 5; paragraph 0026, 0041, 0078: the server receives a media file to be published from a publishing client via wired or wireless connection)
- using the subscription router to access a table to determine which one of a plurality of different entities in communication with the publisher/subscriber architecture, and that have each previously provided a subscription request to the publisher/subscriber architecture, are to receive the first information (Fig. 1, Fig. 2, paragraph 0025: publishing clients, subscribing clients; Fig. 5; paragraph 0077, 0082: the server adds the subscribing client to a list of subscribers for the network media channel and when the server receives a

request from a subscribing client that is a subscriber to the network media channel, it sends the published media file to a subscribing client; the table or database containing the list of subscriber is implicitly accessed to determine which of subscriber are receive the media file);

- using the table to determine specifically which one or more of the plurality of different entities are to receive the first information, and transmitting the first information to the one or more of the plurality of different entities in accordance with subscription information from the table (Fig. 1, Fig. 2, paragraph 0025: plurality of publishing clients and subscribing clients; Fig. 5; paragraph 0077, 0078, 0082: the server adds the subscribing client to a list of subscribers for the network media channel and when the server receives a request from a subscribing client that is a subscriber to the network media channel, it sends the published media file to a subscribing client; the server implicitly determines which of subscriber are receive the media file based on the subscriber list),
- using a publication manager of the publisher/subscriber architecture to accept a second information from the one or more of the plurality of different entities (Fig. 1, Fig. 2, paragraph 0025: plurality of publishing clients and subscribing clients; Fig. 5: publish manager; paragraph 0026, 0053: publish manager manages media files received from publishing clients as published files; the media file as second information is implicitly different from the other media files as first information because plurality of publishing clients and subscribing clients are communicated via the server), and to act as a publisher of the second

information for the one or more of the plurality of different entities to at least one remote entity (Fig. 1, Fig. 2, paragraph 0025: plurality of publishing clients and subscribing clients; Fig. 5: publish manager; paragraph 0078: the server receives a media file to be published from a publishing client, determines to which network media channel the received media file is to be published; paragraph 0080: once the media filed is published, subscribing client that are subscribers can request the media file from the server); and

- using the publication manager to publish the second information (Fig. 5: publish manager; paragraph 0078: the server receives a media file to be published from a publishing client, determines to which network media channel the received media file is to be published; paragraph 0080: once the media filed is published, subscribing client that are subscribers can request the media file from the server)
- for at least one of the publisher and subscriber operations, using the publisher/subscriber architecture to automatically register the one or more of the entities to implement one of the publishing and subscription operations without a registration action by the one or more of the plurality of different the entities (Fig. 1, Fig. 2, paragraph 0025: plurality publishing clients and subscribing clients; paragraph 0082: the server automatically sends new media files to a subscribing client such as along with the notification or after receiving that the notification received)

Schwesig discloses all the subject matter of the claimed invention with the exception for providing a publisher/subscriber architecture having a subscription

manager for generating a subscription whereas Schwesig discloses subscription manager of server receives adds the subscribing client to a list of subscribers after verifying the authority so that the server sends published media file to the subscribing client via wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2, Fig. 5, paragraph 0041, 0042, 0052, 0077, 0078, 0080-0082). Evans discloses providing a publisher/subscriber architecture having a subscription manager for generating a subscription (Fig. 2; paragraph 0018 lines 3-7: publish & subscribe data distribution; paragraph 0020 lines 1-7: subscription message generator generating subscription message in a format acceptable to the data distribution system). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate providing a publisher/subscriber architecture having a subscription manager for generating a subscription of Evans to the method of Schwesig such that the subscription manager generates subscription message to distribution system including forwarding computers on behalf of the proxy server to receive updates to specified data sets. The motivation would have been to automatically update a cached file as soon as an update becomes available at a source file by using a publish and subscribe system (Evans paragraph 0010 lines 1-6).

Schwesig and Evans disclose all the subject matter of the claimed invention with the exception for using a first protocol translator for translating the first information from a first protocol to a second protocol, transmitting the first information after the first information has been translated to the second protocol, and using a second protocol

translator for translating the second information from a third protocol to the second protocol, publishing the second information after the second information has been translated from the third protocol to the second protocol whereas Schwesig discloses transcoding manager providing a published media file in a requested format (paragraph 0054), server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the

wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). In addition, HTML and RTP are used when the device has the appropriate capability in a network including Internet according to Fig. 2, 5, paragraph 0023, 0029. Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger, publish manager, transcoding manager connecting to the plurality of the publishing clients and subscribing clients, ready for improvement to yield predictable results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML and the publish manager publishes media file after translating, for instance, from Wireless Protocol, e.g., WML, to Internet Protocol, e.g., XML or HTML, utilizing XML formats.

For claim 2, Schwesig discloses

- one or more of the entities (Fig. 2: publishing clients, subscribing clients)

Schwesig and Evans disclose all the subject matter of the claimed invention with the exception for time division multiplexing information whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP

network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). Giroti discloses time division multiplexing information (Fig. 2 20 PSTN, 26 phone; PSTN is TDM based network). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate time division multiplexing information of Giroti to the method of Schwesig and Evans such that TDM information is transmitted to the subscribing clients. The motivation would have been to provide a Unified XML based integrated voice and data media converging switch and application delivery system, together forming an integrated application delivery system, are disclosed that enable users to interact with computer applications in a generally richer manner, enhancing service effectiveness and user satisfaction (Giroti paragraph 0006 lines 1-7).

For claim 6, Schwesig discloses

- the second protocol is an Internet Protocol (Fig. 2; paragraph 0024: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs)

Schwesig and Evans disclose all the subject matter of the claimed invention with the exception for the first protocol is a TDM protocol whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041),

server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses the first protocol is a TDM protocol (Fig. 2 20 PSTN, 26 phone; PSTN is TDM based network) and converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the

invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger, publish manager, transcoding manager, ready for improvement to yield predictable results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML.

For claim 7, Schwesig discloses

- the first protocol and the second protocol (Fig. 2; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs)

Schwesig and Evans disclose all the subject matter of the claimed invention with the exception for using XML to translate between the first protocol and the second protocol whereas Schwesig discloses transcoding manager providing a published media file in a requested format (paragraph 0054), server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located

at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses using XML to translate between the first protocol and the second protocol (paragraph 0026: converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network; Fig. 2, 5, paragraph 0022-0024, 0029: unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN). Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger, publish manager, transcoding manager, ready for improvement to yield predictable results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML.

11. **Claims 3, 4** are rejected under 35 U.S.C. 103(a) as being unpatentable by Schwesig (US 2005/0010635) in view of Evans et al. (US 2003/0033283) and Giroti et al. (US 2003/0018700) as applied to claim 1 above, and further in view of Chou et al. (US 2003/0018796).

For claim 3, Schwesig discloses

- publisher and subscriber architecture (Fig. 2)

Schwesig, Evans, and Giroti disclose all the subject matter of the claimed invention with the exception for fusing the first information and a third information and transmitting the fused information whereas Schwesig discloses subscription manager of server receives adds the subscribing client to a list of subscribers after verifying the authority so that the server sends published media file to the subscribing client via wired or wireless connection after receiving media file from the publishing client via wired or wireless connection (Fig. 2, Fig. 5, paragraph 0041, 0042, 0052, 0077, 0078, 0080-0082). Chou discloses using the first information and a third information and transmitting the fused information (Fig. 3B, Fig. 5; paragraph 0013 lines 11-19: multiplexing different versions of the multimedia information encoded at a different transmission rate to form a sequence of frames having an average transmission rate approximating the available transmission rate; paragraph 0042 lines 12-18). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate fusing the first information and a third information and transmitting the fused information

of Chou to the method of Schwesig, Evans, and Giroti such that different version of media file encoded at a different transmission rate is multiplexed in order to transmitted to subscriber. The motivation would have been to increase bandwidth efficiency by using multiplexing technique.

For claim 4, Schwesig discloses

- publisher and subscriber architecture (Fig. 1)

Schwesig, Evans, and Giroti disclose all the subject matter of the claimed invention with the exception for the first information and the third information transmitted at different rates whereas Schwesig discloses subscription manager of server receives adds the subscribing client to a list of subscribers after verifying the authority so that the server sends published media file to the subscribing client via wired or wireless connection after receiving media file from the publishing client via wired or wireless connection (Fig. 2, Fig. 5, paragraph 0041, 0042, 0052, 0077, 0078, 0080-0082). Chou discloses the first information and the third information transmitted at different rates (Fig. 3B, Fig. 5; paragraph 0013 lines 11-19: multiplexing different versions of the multimedia information encoded at a different transmission rate to form a sequence of frames having an average transmission rate approximating the available transmission rate; paragraph 0042 lines 12-18). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the first information and the third information transmitted at different rates of Chou to the method of Schwesig, Evans, and Giroti such that different version of media file encoded at a

different transmission rate is multiplexed in order to transmitted to subscriber. The motivation would have been to increase bandwidth efficiency by using multiplexing technique.

12. **Claims 8-10** are rejected under 35 U.S.C. 103(a) as being unpatentable by Schwesig (US 2005/0010635) in view of Evans et al. (US 2003/0033283) and Giroti et al. (US 2003/0018700) as applied to claim 1 above, and further in view of Nedbal (US 7,107,574).

For claim 8, Schwesig discloses

- the protocol associated with the second information and an expected protocol for the second information (Fig. 2; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs; Fig. 5; paragraph 0077 lines 1-8: the server receives a request to be added as a subscriber from the subscribing client. If the channel is restricted, the server first verifies that the subscribing client is authorized to become a subscriber. The server adds the subscribing client to a list of subscribers for the network media channel; paragraph 0078 lines 1-2: the server receives a media file to be published from a publishing client)

Schwesig, Evans, and Giroti disclose all the subject matter of the claimed invention with the exception for validating the second information by comparison the protocol associated with the second information against an expected protocol for the

second information whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042) and Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Nedbal discloses validating by comparison utilizing XSD schema (col 6 lines 30-31: validating XML data against XML schema data; col 11 lines 47-55: XML parser validating XMAL data against the XSD data in order to generate a validation result in including error message and valid configuration response). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to validating by comparison using XSD schema of Nedbal to the method of Schwesig, Evans, and Giroti such that the protocol of media file

as second information is validated utilizing XSD schema within the server having subscription manager, publish manager, transcoding manager, and unified XML controller. The motivation would have been to enhance reliability by using XSD validation technique.

For claim 9, Schwesig discloses

- the protocol associated with the second information and an expected protocol for the second information (Fig. 2; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs; Fig. 5; paragraph 0077 lines 1-8: the server receives a request to be added as a subscriber from the subscribing client. If the channel is restricted, the server first verifies that the subscribing client is authorized to become a subscriber. The server adds the subscribing client to a list of subscribers for the network media channel; paragraph 0078 lines 1-2: the server receives a media file to be published from a publishing client)

Schwesig, Evans, and Giroti disclose all the subject matter of the claimed invention with the exception for validating using an XSD schema whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets

(Fig. 2: paragraph 0041, 0042) and Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Nedbal discloses validating using an XSD schema (col 6 lines 30-31: validating XML data against XML schema data; col 11 lines 47-55: XML parser validating XMAL data against the XSD data in order to generate a validation result in including error message and valid configuration response). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate validating using an XSD schema of Nedbal to the method of Schwesig, Evans, and Giroti such that the protocol of media file as second information is validated utilizing XSD schema within the server having unified subscription manager, publish manager, and transcoding manager, and unified XML controller. The motivation would have been to enhance reliability by using XSD validation technique.

For claim 10, Schwesig discloses

- the protocol associated with the second information and an expected protocol for the second information (Fig. 2; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs; Fig. 5; paragraph 0077 lines 1-8: the server receives a request to be added as a subscriber from the subscribing client. If the channel is restricted, the server first verifies that the subscribing client is authorized to become a subscriber. The server adds the subscribing client to a list of subscribers for the network media channel; paragraph 0078 lines 1-2: the server receives a media file to be published from a publishing client)

Schwesig, Evans, and Giroti disclose all the subject matter of the claimed invention with the exception for ignoring subsequent messages from the same source if the validation failed whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042) and Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified

XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Nedbal discloses ignoring subsequent messages from the same source if the validation failed (col 6 lines 30-31: validating XML data against XML schema data; col 11 lines 47-55: XML parser validating XMAL data against the XSD data in order to generate a validation result in including error message in case of failure; subsequent pieces are implicitly ignored due to generating error message). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate ignoring subsequent messages from the same source if the validation failed of Nedbal to the method of Schwesig, Evans, and Giroti such that the server having unified subscription manager, publish manager, and transcoding manager, and unified XML controller ignores subsequent pieces of media file if the validation is failed. The motivation would have been to enhance reliability by using XSD validation technique.

13. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable by Schwesig (US 2005/0010635) in view of Evans et al. (US 2003/0033283) and Giroti et al. (US 2003/0018700) as applied to claim 1 above, and further in view of Mueller et al. (US 2005/0027867).

For claim 11, Schwesig discloses

- accepting a request for a changed subscription from the entity and changing the subscription, and updating the table to reflect the changed subscription (paragraph 0077: the server receives a request to be added as a subscriber from the subscribing client. If the channel is restricted, the server first verifies that the subscribing client is authorized to become a subscriber. The server adds the subscribing client to a list of subscribers for the network media channel)

Schwesig, Evans, and Giroti disclose all the subject matter of the claimed invention with the exception for dynamic subscription registration whereas Schwesig discloses server adding the subscribing client to a list of subscribers as receiving request (paragraph 0077). Mueller discloses dynamic subscription registration (paragraph 0034 lines 1-10: subscription including identity, and device registration done dynamically at a future time). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate dynamic subscription registration of Mueller to the method of Schwesig, Evans, and Giroti such that the server adds the subscriber to the list of subscribers dynamically. The motivation would have been to increase flexibility by actively changing information by user (paragraph 0034 lines 6-10).

14. **Claims 12, 14, 17, 21-29, 31, 32, 35** are rejected under 35 U.S.C. 102(e) as being anticipated by Schwesig (US 2005/0010635) in view of Giroti et al. (US 2003/0018700).

For claim 12, Schwesig discloses a system comprising:

- an interface to a specific entity (Fig. 2: publishing clients, subscribing clients; Fig. 5: network interface), the specific entity interface including a first protocol for communicating with the specific entity over the first network (Fig.2, paragraph 0024, 0026, 0041, 0042: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets and subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets); and
- a network interface to a publisher/subscriber architecture on the second network, the publisher/subscriber architecture (Fig.2, paragraph 0024, 0026, 0041, 0042: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets and subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets) implemented via a processor (paragraph 0101, 0102: processor), and including :
- a publication manager, implemented at least in part by a hardware apparatus, that determines which one of a plurality of remote entities is to receive a first quantity of information that is received by the agent from the specific entity and published by the agent (Fig. 1, Fig. 2, paragraph 0025: plurality of publishing

clients and subscribing clients; Fig. 5: server having subscription manager, publish manager; paragraph 0077, 0078, 0082: the server adds the subscribing client to a list of subscribers for the network media channel and when the server receives a request from a subscribing client that is a subscriber to the network media channel, it sends the published media file to a subscribing client; the server implicitly determines which of subscriber are receive the published media file based on the subscriber list); and

- a subscription manager, implemented at least in part by a hardware apparatus, that establishes at least one subscription for the specific entity to receive publications from at least a selected one of the plurality of remote entities (Fig. 2, Fig. 5, paragraph 0041, 0042, 0052, 0077, 0078, 0080-0082: server having subscription manager and publish manager adds the subscribing client to a list of subscribers after verifying the authority so that the server sends published media file to the subscribing client via wired or wireless connection after receiving media file from the publishing client via wired or wireless connection);
- a subscription router that receives the publications from the selected one of the remote entities (Fig. 5; paragraph 0026, 0041, 0078: the server receives a media file to be published from a publishing client via wired or wireless connection);
- a subscription and publication table that the subscription router accesses to hold subscription information pertaining to which ones of a plurality of different entities are to receive subscription information from the subscription router, and to identify that the subscription information is to be transmitted to the specific entity

(Fig. 2: publishing clients, subscribing clients; Fig. 5; paragraph 0077, 0078, 0082: the server adds the subscribing client to a list of subscribers for the network media channel and when the server receives a request from a subscribing client that is a subscriber to the network media channel, it sends the published media file to a subscribing client; the server implicitly determines which of subscriber are receive the published media file based on the subscriber list); and

- the subscription and publication table also holding publication information as to which one or more of said pluralities of remote entities said publications from said specific remote entity are to be published to (Fig. 2, Fig. 5, paragraph 0053: publish manager retrieves identifying information or authorizing information from the metadata media file so that only members of publishing clients can publish to the channel; paragraph 0077, 0078, 0082: the server adds the subscribing client to a list of subscribers for the network media channel and when the server receives a request from a subscribing client that is a subscriber to the network media channel, it sends the published media file to a subscribing client)

Schwesig discloses all the subject matter of the claimed invention with the exception for a first protocol translator for translating the first information from a first protocol to a second protocol as required and a second protocol translator for translating the second information from a third protocol to the second protocol as required whereas Schwesig discloses transcoding manager providing a published media file in a requested format (paragraph 0054), server connecting to the publishing

clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). In addition, HTML and RTP are used when the device has the appropriate capability in a network including Internet according to Fig. 2, 5, paragraph 0023, 0029. Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used

in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger, publish manager, transcoding manager, ready for improvement to yield predictable results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML and the publish manager publishes media file after translating, for instance, from Wireless Protocol, e.g., WML, to Internet Protocol, e.g., XML or HTML, utilizing XML formats.

For claim 14, Schwesig discloses

- the translator (Fig. 2, paragraph 0054: transcoding manager)

Schwesig discloses all the subject matter of the claimed invention with the exception for at least one of the first and second translator is based on XML whereas Schwesig discloses transcoding manager providing a published media file in a requested format (paragraph 0054), server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is

publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). In addition, HTML and RTP are used when the device has the appropriate capability in a network including Internet according to Fig. 2, 5, paragraph 0023, 0029. Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger,

publish manager, transcoding manager, ready for improvement to yield predictable results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML and the publish manager publishes media file after translating, for instance, from Wireless Protocol, e.g., WML, to Internet Protocol, e.g., XML or HTML, utilizing XML formats.

For claim 17, Schwesig discloses

- further comprising a registration manager to register the first specific entity as at least one of a publisher and a subscriber (Fig. 2: publishing clients, subscribing clients; Fig. 5; paragraph 0077: the server receives a request to be added as a subscriber from the subscribing client. If the channel is restricted, the server first verifies that the subscribing client is authorized to become a subscriber. The server adds the subscribing client to a list of subscribers for the network media channel)

For claim 21, Schwesig discloses

- the specific entity interface (Fig.2, paragraph 0024, 0026, 0041, 0042: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets and subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets)

Schwesig discloses all the subject matter of the claimed invention with the exception for the entity interface is a TDM interface whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses the entity interface is a TDM interface (Fig. 2 20 PSTN, 26 phone; PSTN is TDM based network; the interface implicitly exists) and converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or

VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger, publish manager, transcoding manager, ready for improvement to yield predictable results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML.

For claim 22, Schwesig discloses

- wherein the network interface includes an Internet interface (Fig.2, paragraph 0024, 0026, 0041, 0042: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets and subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets)

For claim 23, Schwesig discloses

- wherein the agent is implemented in at least one of hardware, firmware, and software (Fig. 5; paragraph 0048 lines 3-6: the server includes one or more

microprocessors and some or all of the control and manager functionality is provided by software executed by the microprocessor)

For claim 24, Schwesig discloses a system comprising:

- a first network having a first protocol (Fig.2, paragraph 0024, 0026, 0041: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets);
- a first specific entity configured to use the first protocol to communicate over the first network (Fig.2, paragraph 0024, 0026, 0041: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets); and
- an agent (Fig. 1, Fig. 2, Fig. 5: server) associated with the first network interposed between the first network (Fig.2, paragraph 0024, 0026, 0041: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets) and a second network (Fig. 2: paragraph 0041, 0042: subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets) including a publisher/subscriber publisher and subscriber architecture (Fig. 1, Fig. 2, paragraph 0025: publishing clients, subscribing clients), the publisher and subscriber architecture being implemented via a processor (Fig. 1, Fig. 2, paragraph 0025: publishing clients, subscribing clients;

paragraph 0101, 0102: processor), the agent (Fig. 1, Fig. 2, Fig. 5: server) adapted to

- operate as a publisher for the first specific entity for a first information to be transmitted by the first specific entity over the first network to the agent (Fig. 1, Fig. 2, paragraph 0025: plurality of publishing clients and subscribing clients; Fig. 5: publish manager; paragraph 0024, 0026, 0041, 0053: publish manager manages media files received from publishing clients, which is connected via wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets, as published files), and
- a subscriber for a second specific entity for a second information to be transmitted to the agent over the second network from one or more remotely located entities (Fig. 1, Fig. 2, paragraph 0025: publishing clients, subscribing clients; Fig. 5; paragraph 0041, 0042, 0077, 0082: the server adds the subscribing client, which is connected via wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets, to a list of subscribers for the network media channel and when the server receives a request from a subscribing client that is a subscriber to the network media channel, it sends the published media file to a subscribing client);
- the publisher and subscriber architecture adapted to access a subscription and publication table to determine which one or more of said plurality of remotely located entities said first information published by said first specific entity is to be published to (Fig. 2, Fig. 5, paragraph 0053: publish manager retrieves

identifying information or authorizing information from the metadata media file so that only members of publishing clients can publish to the channel; paragraph 0077, 0078, 0082: the server adds the subscribing client to a list of subscribers for the network media channel and when the server receives a request from a subscribing client that is a subscriber to the network media channel, it sends the published media file to a subscribing client); and

- the publisher and subscriber architecture adapted to access the subscription and publication table to determine, from data stored therein, that the second specific entity is to receive the second information from a given one of said one or more remotely located entities (Fig. 1, Fig. 2, paragraph 0025: plurality of publishing clients and subscribing clients; Fig. 5; paragraph 0053: publish manager retrieves identifying information or authorizing information from the metadata media file so that only members of publishing clients can publish to the channel; paragraph 0077-0079, 0082: the server adds the subscribing client to a list of subscribers for the network media channel and when the server receives a request from a subscribing client that is a subscriber to the network media channel, it sends the published media file stored to a subscribing client; the server implicitly determines which of subscriber are receive the media file based on the subscriber list)

Schwesig discloses all the subject matter of the claimed invention with the exception for a first protocol translator for translating the first information from a first protocol to a second protocol before transmitting the first information to the second

network and a second protocol translator for translating the second information from a third protocol to the second protocol before transmitting the first information to the second network whereas Schwesig discloses transcoding manager providing a published media file in a requested format (paragraph 0054), server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the

Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). In addition, HTML and RTP are used when the device has the appropriate capability in a network including Internet according to Fig. 2, 5, paragraph 0023, 0029. Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger, publish manager, transcoding manager, ready for improvement to yield predictable results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML and the publish manager publishes media file after translating, for instance, from Wireless Protocol, e.g., WML, to Internet Protocol, e.g., XML or HTML, utilizing XML formats.

For claim 25, Schwesig discloses

- further comprising: a third network in communication with the second network (Fig. 2: paragraph 0024, 0026, 0041, 0042: server connects to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets and subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs,

WANs, enterprise intranets) and providing the second information (Fig. 1, Fig. 2, paragraph 0025: plurality of publishing clients and subscribing clients; Fig. 5: publish manager; paragraph 0026, 0053: publish manager manages media files received from publishing clients as published files; the media file as second information is implicitly different from the other media files as first information because plurality of publishing clients and subscribing clients are communicated via the server)

For claim 26, Schwesig discloses

- further comprising: a third network in communication with the second network (Fig. 2: paragraph 0024, 0026, 0041, 0042: server connects to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets and subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets) and subscribing for the first information (Fig. 5; paragraph 0026, 0041, 0078: the server receives a media file to be published from a publishing client via wired or wireless connection)

For claim 27, Schwesig discloses

- the first protocol (Fig. 2: publishing clients, subscribing clients; Fig. 5; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs)

Schwesig discloses all the subject matter of the claimed invention with the exception for the first protocol is a TDM protocol whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is publishing client and/or subscribing client connecting to server via different types of network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses the first protocol is a TDM protocol (Fig. 2 20 PSTN, 26 phone; PSTN is TDM based network) and converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network,

which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger, publish manager, transcoding manager, ready for improvement to yield predictable results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML.

For claim 28, Schwesig discloses

- The first protocol (Fig. 2; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs; Fig. 5)

Schwesig and Giroti disclose all the subject matter of the claimed invention with the exception for TADIL-J. Examiner takes Official Notice that TADIL-J is well known protocol in the art. Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to use TADIL-J instead of TDM in order to provide flexibility over communication network.

For claim 29, Schwesig discloses

- The first protocol (Fig. 2; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs; Fig. 5)

Schwesig and Giroti disclose all the subject matter of the claimed invention with the exception for VMF. Examiner takes Official Notice that VMF is well known protocol in the art. Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to use VMF instead of TDM in order to provide flexibility over communication network.

For claim 31, Schwesig discloses

- the translator (Fig. 2, paragraph 0054: transcoding manager)

Schwesig discloses all the subject matter of the claimed invention with the exception for at least one of the first and second translator is based on XML whereas Schwesig discloses transcoding manager providing a published media file in a requested format (paragraph 0054), server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042). In particular, each client is publishing client and/or subscribing client connecting to server via different types of

network connectivity. In other words, each client is located at different types of network, e.g., IP, GSM, Wi-FI, Ns, WANs, enterprise intranets, etc., within network 205. Accordingly, transcoding is required for publishing/subscribing data communication to resolve compatibility issue. Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). In addition, HTML and RTP are used when the device has the appropriate capability in a network including Internet according to Fig. 2, 5, paragraph 0023, 0029. Since XML or HTML is well known protocol in IP network, in particular, HTML or XML is implicitly used in the enterprise IP network while WML is used for wireless network and VxML is used in PSTN network. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a known technique, e.g., translating data packets between different types of networks such as wireless, PSTN, IP network utilizing XML formats by server, to a known device, which is server having subscription manger, publish manager, transcoding manager, ready for improvement to yield predictable

results such that the server sends media file after translating, for instance, from PSTN protocol, e.g., VxML, to Internet Protocol, e.g., XML or HTML and the publish manager publishes media file after translating, for instance, from Wireless Protocol, e.g., WML, to Internet Protocol, e.g., XML or HTML, utilizing XML formats. .

For claim 32, Schwesig discloses

- the first network is associated with a mobile platform (Fig. 2: paragraph 0024, 0026, 0041, 0042: server connects to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets and subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets)

For claim 35, Schwesig discloses

- the first protocol is custom to the first network (Fig. 2: paragraph 0024, 0026, 0041, 0042: server connects to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets and subscribing client having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets)

15. **Claims 15, 16** are rejected under 35 U.S.C. 103(a) as being unpatentable by Schwesig (US 2005/0010635) in view of Giroti et al. (US 2003/0018700) as applied to claim 12 above, and further in view of Chou et al. (US 2003/0018796)).

For claim 15, Schwesig discloses

- The sources being associated with at least one of the first network and the second network (Fig. 2: publishing clients, subscribing clients; Fig. 5: network interface; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs)

Schwesig and Giroti disclose all the subject matter of the claimed invention with the exception for an information fuser wherein the fuser to fuse information for at least two sources whereas Schwesig discloses subscription manager of server receives adds the subscribing client to a list of subscribers after verifying the authority so that the server sends published media file to the subscribing client via wired or wireless connection after receiving media file from the publishing client via wired or wireless connection (Fig. 2, Fig. 5, paragraph 0041, 0042, 0052, 0077, 0078, 0080-0082). Chou discloses an information fuser wherein the fuser to fuse information for at least two sources (Fig. 3B, Fig. 5; paragraph 0013 lines 11-19: multiplexing different versions of the multimedia information encoded at a different transmission rate to form a sequence of frames having an average transmission rate approximating the available transmission rate; paragraph 0042 lines 12-18). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate an

information fuser wherein the fuser to fuse information for at least two sources of Chou to the method of Schwesig, Evans, and Giroti such that different version of media file encoded at a different transmission rate is multiplexed in order to transmitted to subscriber. The motivation would have been to increase bandwidth efficiency by using multiplexing technique.

For claim 16, Schwesig discloses

- The first and second sources (Fig. 2: publishing clients, subscribing clients; Fig. 5: network interface; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs)

Schwesig and Giroti disclose all the subject matter of the claimed invention with the exception for the information fuser being configured to accept information form the first and the second sources at different rates whereas Schwesig discloses subscription manager of server receives adds the subscribing client to a list of subscribers after verifying the authority so that the server sends published media file to the subscribing client via wired or wireless connection after receiving media file from the publishing client via wired or wireless connection (Fig. 2, Fig. 5, paragraph 0041, 0042, 0052, 0077, 0078, 0080-0082). Chou discloses the information fuser being configured to accept information form the first and the second sources at different rates (Fig. 3B, Fig. 5; paragraph 0013 lines 11-19: multiplexing different versions of the multimedia information encoded at a different transmission rate to form a sequence of frames having an average transmission rate approximating the available transmission rate;

paragraph 0042 lines 12-18). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the information fuser being configured to accept information form the first and the second sources at different rates of Chou to the method of Schwesig, Evans, and Giroti such that different version of media file encoded at a different transmission rate is multiplexed in order to transmitted to subscriber. The motivation would have been to increase bandwidth efficiency by using multiplexing technique.

16. Claims 18-20, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable by Schwesig (US 2005/0010635) in view of Giroti et al. (US 2003/0018700) as applied to claims 12, 24 above, and further in view of Nedbal (US 7,107,574).

For claim 18, Schwesig discloses

- information received (Fig. 5; paragraph 0026, 0041, 0078: the server receives a media file to be published from a publishing client via wired or wireless connection) from the second network (Fig.2, paragraph 0024, 0026, 0041: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets)

Schwesig and Giroti disclose all the subject matter of the claimed invention with the exception for a validation manager to validate information whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024,

0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042) and Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Nedbal discloses a validation manager to validate information (col 6 lines 30-31: validating XML data against XML schema data; col 11 lines 47-55: XML parser validating XMAL data against the XSD data in order to generate a validation result in including error message and valid configuration response). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to validating by comparison using XSD schema of Nedbal to the method of Schwesig and Giroti such that the protocol of media file is validated by validation manager utilizing XSD schema within the server having subscription manager, publish manager, transcoding manager, and

unified XML controller. The motivation would have been to enhance reliability by using XSD validation technique.

For claim 19, Schwesig discloses

- the protocol associated with the information from the second network with an expected protocol for the information from the second network (Fig. 2: publishing clients, subscribing clients; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs; Fig. 5; paragraph 0077 lines 1-8: the server receives a request to be added as a subscriber from the subscribing client. If the channel is restricted, the server first verifies that the subscribing client is authorized to become a subscriber. The server adds the subscribing client to a list of subscribers for the network media channel; paragraph 0078 lines 1-7: the server receives a media file to be published from a publishing client. The server determines to which network media channel the received media file is to be published. It the network media channel is restricted, the server verifies that the publishing client is authorized to publish to the channel and verifies the media file is within any other restrictions of the channel; paragraph 0080 lines 1-3: once the media filed is published, subscribing client that are subscribers can request the media file from the server)

Schwesig and Giroti disclose all the subject matter of the claimed invention with the exception for validation manager to validate the information by comparison whereas Schwesig discloses server connecting to the publishing clients by wired or wireless

connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042) and Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Nedbal discloses validation manager to validate the information by comparison (col 6 lines 30-31: validating XML data against XML schema data; col 11 lines 47-55: XML parser validating XMAL data against the XSD data in order to generate a validation result in including error message and valid configuration response). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to validating by comparison using XSD schema of Nedbal to the method of Schwesig and Giroti such that the protocol of media file as second information is validated utilizing XSD schema within the server having

subscription manager, publish manager, transcoding manager, and unified XML controller. The motivation would have been to enhance reliability by using XSD validation technique.

For claims 20, 34, Schwesig discloses

- information received (Fig. 5; paragraph 0026, 0041, 0078: the server receives a media file to be published from a publishing client via wired or wireless connection) from the second network (Fig.2, paragraph 0024, 0026, 0041: the publishing client is connected by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets)

Schwesig and Giroti disclose all the subject matter of the claimed invention with the exception for an XSD schema used by validation manager to validate information whereas Schwesig discloses server connecting to the publishing clients by wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig.2, paragraph 0024, 0026, 0041), server connecting to subscribing clients having network interface, which is substantially similar to the network interface in the publishing client, including wired or wireless connection, e.g., IP network, GSM, Wi-Fi, LANs, WANs, enterprise intranets (Fig. 2: paragraph 0041, 0042) and Giroti discloses converging switch the integrated application delivery system (IADS) is an Intelligent IP, PSTN, Wireless Switching Router that is packaged as a hardware device that can be connected on the edge of an IP network within an enterprise to provide intelligent switching and routing of messages and XML data packet between IP, Wireless and the

PSTN network in heterogeneous network (paragraph 0026), unified XML controller of the IADS translates data packets between enterprise IP network, which is coupled to applications and database, and the user networks, e.g., wireless network, PSTN, IP network, using XML. For instance, WML is delivered over the wireless network as a data packet while the Voice XML or VxML is delivered on PSTN (Fig. 2, 5, paragraph 0022-0024, 0029). Nedbal discloses an XSD schema used by validation manager to validate information (col 6 lines 30-31: validating XML data against XML schema data; col 11 lines 47-55: XML parser validating XMAL data against the XSD data in order to generate a validation result in including error message and valid configuration response). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate validating using an XSD schema of Nedbal to the method of Schwesig and Giroti such that the protocol of media file as second information is validated utilizing XSD schema within the server having unified subscription manager, publish manager, and transcoding manager, and unified XML controller. The motivation would have been to enhance reliability by using XSD validation technique.

17. **Claim 33** is rejected under 35 U.S.C. 103(a) as being unpatentable by Schwesig (US 2005/0010635) in view of Giroti et al. (US 2003/0018700) as applied to claim 24 above, and further in view of McCall et al. (US 2002/0188522).

For claim 33, Schwesig discloses

- the mobile platform (Fig. 2: publishing clients, subscribing clients; Fig. 5: network interface; paragraph 0024 lines 1-11: the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs)

Schwesig and Giroti disclose all the subject matter of the claimed invention with the exception for air craft as mobile platform whereas the network is a combination of IP network, wireless network, Wi-Fi network, LANs, WANs (paragraph 0024 lines 1-11). McCall discloses air craft as mobile platform (paragraph 0074 lines 6-9). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate air craft as mobile platform of McCall to the system of Schwesig and Giroti such that the air craft is used in wireless network. The motivation would have been to provide maximize mobility.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wang et al. (US 2002/0160745) is considered pertinent to applicant's disclosure, especially, translating from Internet Protocol, e.g., HTML, XML, to Wireless network protocol, e.g., WML.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jae Y. Lee whose telephone number is (571) 270-3936. The examiner can normally be reached on Monday through Friday from 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on (571) 272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jae Y Lee/
Examiner, Art Unit 2466